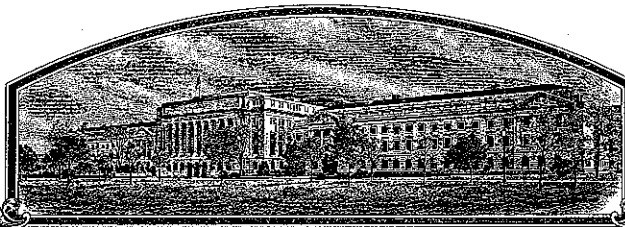


No.

200400025



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Dr. Peter Franck

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'SATURN'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixteenth day of March, in the year two thousand and five.

Attest:

[Signature]
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

[Signature]
Secretary of Agriculture



09/22/60 MON 11:39 PM 1/0324230

200400025

10010001000

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. **Retain one copy for your files.** All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 <http://www.ams.usda.gov/lsg/seed.htm>.

ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

First sale/transfer to USA:

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0065. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

ACS - PZO

EXHIBIT A BREEDING HISTORY

Name of applicant : Dr. Peter Franck

Experimental Number : SATURN (ACS 99657) Hard Red Spring Wheat

SATURN is a hard red spring wheat bred by ACS - PZO - Pflanzenzucht Oberlimpurg in Germany The variety is the result of the following crosses and selections:

Pedigree : ANB'S//HEGE312-75-262/CHAT'S

ANA'S = Selection in an experimental line

HEGE 312-75-262 = German experimental line , never became named

CHAT'S = selection in Chat , mexican origin

F 1 seed were bulked at harvest 1990 ; the F 2 to F5 generations were grown and selected in Oberlimpurg .

Agronomically acceptable rows were selected ; 25 such rows were multiplied . Testing of agronomic values started in F 7 generation in North America and Europe.

Successive generations were tested in various US-states , mainly in North Dakota and Minnesota.

Stages of Selection and Multiplication :

From this 25 rows 2 lines were finally selected and bulked.

Breeders seed was planted in 2002 and approximately 50 acres in the spring 2003 for the purpose of producing Foundation seed.

SATURN will be maintained at Oberlimpurg throughout the duration of Plant Variety Protection , based on 800 single plant progenies sown annually as „ear to row“. Negative selection is based on obvious criteria in all stages from 4-leaf-stage to harvest. Breeders seed production is generated from this material.

Uniformity and Stability Statement

SATURN has been observed for 5 generations of increase and is stable and uniform . Variants appear in SATURN at a frequency of about 1 in 5000. These variants have 3-5 cm longer straw but are identical to the variety in all other characteristics as described in Exhibit C. These variants are commercially acceptable ..

Selection criteria : high yields ; Scab tolerance ; lodging resistance , leaf rust resistance

Exhibit A: Origin and Breeding History of the Variety

Pedigree:

Hege 312-75-262: german line never become named

It's not possible to traceable back the experimental line Hege 312-75-262. In Germany only 10% of the applicated lines become registered, the other 90% have no names, but are used for crosses as well. So most experimental lines have parents which are also experimental lines and their parents are experimental lines, too.

Exhibit B: Statement of Distinctness

Saturn is most similar to Conan. However, Saturn is 5 days later for ear emergence (see statistical analysis Table 1-3) than Conan. Saturn is 5 cm taller, and the stem of Saturn is hollow, whereas the stems of Conan are solid to semi-solid.

Measurement for spring wheat varieties Saturn (ACS 99657) and Conan

From the varieties Saturn and Conan, 20 plants were examined in two locations and two years and the characters were measured. The datas were calculated with PLABSTAT (Utz, 1989).

Location 1: Langdon, North Dakota, USA

2002: planting 23.4., harvesting 21.8.

2003: planting 27.4., harvesting 23.8.

Location 2: Oberlimpurg, Schwäbisch Hall, Germany

2002: planting 01.04., harvesting 10.08.

2003: planting 15.03., harvesting 15.07.

A test for skewness and curtosis was made to make sure that the datas were normal-distributed. The original datas, mean values and variances for each variety, each year and each location are given in Tab.1, Tab.2 und Tab.3.

An ANOVA survey was made over years and locations to test if the two varieties can be distinguished from each other. In the statistical model varieties, locations and years were regarded as factorial factors. Repetitional measurements within varieties, locations and years were regarded as hierarchical factors. Table 4 gives the F-value for each factor and its significance (** for $\alpha=0.01$, * for $\alpha=0.05$ and + for $\alpha=0.1$).

Tab. 1 Plant height (cm)

variety	character	year	locat.	measurements (cm)																				mean	total mean
ACS 99657	plant	2002	loc 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
				81	82	83	82	85	83	84	85	83	84	84	87	84	86	86	86	85	85	83	84	84,10	
				loc 2	94	92	96	98	97	93	95	94	93	96	94	99	98	96	98	95	99	96	97	95,80	
	cm	2003	loc 1	85	83	87	84	85	87	86	82	85	86	88	84	86	85	86	87	84	82	86	84	85,10	
				loc 2	97	96	95	95	95	97	93	95	96	95	97	98	97	98	96	97	98	94	94	96,15	90,29
				loc 1	83	82	83	80	80	83	84	78	84	83	82	79	80	81	80	79	80	78	83	81,10	
Conan	plant	2002	loc 2	95	95	90	90	94	91	93	90	92	93	92	96	92	89	94	94	94	92	92	93	92,55	
				loc 1	81	81	81	85	82	82	86	79	84	79	82	83	84	83	78	84	83	82	79	81,90	
				loc 2	96	93	95	93	93	95	93	91	94	94	95	92	90	92	93	96	95	94	89	93,35	87,23

Tab. 2 ear emergence (from 1st of January)

variety	character	year	locat.	measurements (mm)																				mean	total mean
ACS 99657	ear	2002	loc 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
				191	190	189	190	190	190	190	188	189	191	190	190	191	190	189	191	190	190	190	190	189,95	
				loc 2	165	164	163	165	165	164	165	165	166	165	167	165	162	164	165	165	167	166	165	164,90	
	emergence	2003	loc 1	164	164	162	164	165	163	164	165	164	164	164	164	165	163	164	164	163	164	164	165	163,95	
				loc 2	160	161	162	160	160	161	159	158	160	158	159	158	160	159	158	187	187	187	187	159,40	169,55
				loc 1	186	186	187	186	185	187	189	187	188	187	186	185	188	187	186	187	187	187	187	186,80	
Conan	ear	2002	loc 2	160	162	161	162	161	162	163	164	160	162	162	165	162	162	162	163	163	162	162	162	162,10	
				loc 1	161	160	159	161	162	161	161	161	161	162	161	162	160	164	163	161	161	159	161	161,10	
				loc 2	156	153	156	157	159	156	156	158	156	157	154	155	157	156	152	156	158	156	156	156,05	166,51

Tab. 3: Significance of examined characters - ACS 99657 (Saturn)

			plant height			heading date	
	DF	MS	F-value	sign.	MS	F-value	sign.
Varieties (Var)	1	18,758	355,180	*	18,453	204,320	+
Locations (Loc)	1	260,490	4932,460	**	440,303	4875,260	**
Var x Loc	1	0,003	0,050	n.s.	0,003	0,030	n.s.
Years (Yrs)	1	1,088	20,600	n.s.	500,070	5537,030	**
Var x Yrs	1	0,008	0,150	n.s.	0,008	0,090	n.s.
Loc x Yrs	1	0,053	1,000	n.s.	201,503	2231,140	*
Var x Loc x Yrs	1	0,053			0,090		

burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the FRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* spp.)

NAME OF APPLICANT(S) DR. PETER FRANCK	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or RD No., City, State, and Zip Code) PFLANZENZUCHT OBERLIMPURG DR. FRANCK OBERLIMPURG D 74253 SCHWAEBISCH HALL GERMANY	PVP NUMBER 200400025 VARIETY NAME SATURN TEMPORARY OR EXPERIMENTAL DESIGNATION AGS 99657

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. or) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____
Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

1=Common 2=Durum 3=Club 4=Other (SPECIFY): _____

2. VERNALIZATION:

1=Spring 2=Winter 3=Other (SPECIFY): _____

3. COLEOPTILE ANTHOCYANIN:

1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (boot stage):

1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (boot stage):

1 = Erect 2 = Recurved 1 = Not Twisted 2 = Twisted
mau 11/24/04

7. EAR EMERGENCE:

Number of Days Earlier Than _____
Number of Days Later Than CONAN

200400025

8. ANTHOR COLOR:

☒ 1

1 = Yellow

2 = Purple

9. PLANT HEIGHT (from soil to top of head, excluding awns):

☐ 0 ☒ 5cm Taller Than Conan☐ 0 ☒ 7cm Shorter Than Parshall

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

10. STEM:

A. ANTHOCYANIN

☐ 1

1 = Absent

2 = Present

B. WAXY BLOOM

☒ 2

1 = Absent

2 = Present

C. HAIRINESS (last internode of rachis)

☐ 1

1 = Absent

2 = Present

D. INTERNODE (SPECIFY NUMBER)

☐ 1

1 = Hollow

2 = Semi-solid

3 = Solid

E. PEDUNCLE

☐ 1

1 = Absent

2 = Present

☒ 25cm Length 25.5 cm☐ 1

1 = Erect 2 = Recurved 3 = Semi-erect

MAH 11/24/2004

11. HEAD (at Maturity):

A. DENSITY

☒ 2

1 = Lax

2 = Middense

3 = Dense

B. SHAPE

☒ 2

1 = Tapering

2 = Strap

3 = Clavate

4 = Other (SPECIFY):

C. CURVATURE

☒ 2

1 = Erect

2 = Inclined

3 = Recurved

D. AWNEDNESS

☒ 4

1 = Awnless

2 = Apically Awnletted

3 = Awnletted

4 = Awned

12. GLUMES (at Maturity):

A. COLOR

☐ 1

1 = White

2 = Tan

3 = Other (SPECIFY):

C. BEAK

☒ 3

1 = Obtuse

2 = Acute

3 = Acuminate

B. SHOULDER

☒ 2

1 = Wanting

2 = Oblique

3 = Rounded

4 = Square

5 = Elevated

6 = Apiculate

D. LENGTH

☒ 2

1 = Short

2 = Medium

(ca. 7mm)

(ca. 8mm)

3 = Long (ca. 9mm)

E. WIDTH

- ☒ 2 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm)
3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

- ☒ 2 1 = Ovate 2 = Oval 3 = Elliptical

C. BRUSH

- ☒ 2 1 = Short 2 = Medium 3 = Long
☐ 1 = Not Collared 2 = Collared

B. CHEEK

- ☒ 1 1 = Rounded 2 = Angular

D. CREASE

- ☒ 2 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

- ☒ 3 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

MAH 11/24/2004

E. Color

- ☒ 3 1 = White 2 = Amber 3 = Red
4 = OTHER (Specify)

G. PHENOL REACTION (see instructions):

- ☒ 4 1 = Ivory 2 = Fawn
3 = Light Brown 4 = Dark Brown
5 = Black

F. TEXTURE

- ☒ 1 1 = Hard 2 = Soft

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

- | | |
|--|---|
| <input checked="" type="checkbox"/> 0 Stem Rust (<i>Puccinia graminis</i> f. sp. <i>tritici</i>) | <input checked="" type="checkbox"/> 4 Leaf Rust (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) |
| <input checked="" type="checkbox"/> 4 Stripe Rust (<i>Puccinia striiformis</i>) | <input checked="" type="checkbox"/> 0 Loose Smut (<i>Ustilago tritici</i>) |
| <input checked="" type="checkbox"/> 0 Tan Spot (<i>Pyrenophora tritici-repentis</i>) | <input checked="" type="checkbox"/> 0 Flag Smut (<i>Urocystis agropyri</i>) |
| <input checked="" type="checkbox"/> 0 Halo Spot (<i>Selenophoma donacis</i>) | <input checked="" type="checkbox"/> 4 Common Bunt (<i>Tilletia tritici</i> or <i>T. laevis</i>) |
| <input checked="" type="checkbox"/> 3 <i>Septoria nodorum</i> (Glume Blotch) | <input checked="" type="checkbox"/> 0 Dwarf Bunt (<i>Tilletia controversa</i>) |
| <input checked="" type="checkbox"/> 0 <i>Septoria avenae</i> (Speckled Leaf Disease) | <input checked="" type="checkbox"/> 0 Karnal Bunt (<i>Tilletia indica</i>) |
| <input checked="" type="checkbox"/> 3 <i>Septoria tritici</i> (Speckled Leaf Blotch) | <input checked="" type="checkbox"/> 3 Powdery Mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>) |
| <input checked="" type="checkbox"/> 4 Scab (<i>Fusarium</i> spp.) | <input checked="" type="checkbox"/> 0 "Snow Molds" |

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

- | | |
|--|--|
| <input checked="" type="checkbox"/> "Black Point" (Kernel Smudge) | <input checked="" type="checkbox"/> Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.) |
| <input checked="" type="checkbox"/> Barley Yellow Dwarf Virus (BYDV) | <input checked="" type="checkbox"/> Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>) |
| <input checked="" type="checkbox"/> Soilborne Mosaic Virus (SBMV) | <input checked="" type="checkbox"/> Black Chaff (<i>Xanthomonas campestris</i> pv. <i>translucens</i>) |
| <input checked="" type="checkbox"/> Wheat Yellow (Spindle Streak) Mosaic Virus | <input checked="" type="checkbox"/> Bacterial Leaf Blight (<i>Pseudomonas syringae</i> pv. <i>syringae</i>) |
| <input checked="" type="checkbox"/> Wheat Streak Mosaic Virus (WSMV) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Other (SPECIFY) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Other (SPECIFY) | <input type="checkbox"/> Other (SPECIFY) |
| <input type="checkbox"/> Other (SPECIFY) | <input type="checkbox"/> Other (SPECIFY) |

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Hessian Fly (<i>Mayetiola destructor</i>) | <input type="checkbox"/> Other (SPECIFY) |
| <input checked="" type="checkbox"/> Stem Sawfly (<i>Cephus</i> spp.) | <input type="checkbox"/> Other (SPECIFY) |
| <input checked="" type="checkbox"/> Cereal Leaf Beetle (<i>Oulema melanopa</i>) | <input type="checkbox"/> Other (SPECIFY) |
| <input checked="" type="checkbox"/> Russian Aphid (<i>Diuraphis noxia</i>) | <input type="checkbox"/> Other (SPECIFY) |
| <input checked="" type="checkbox"/> Greenbug (<i>Schizaphis graminum</i>) | <input type="checkbox"/> Other (SPECIFY) |
| <input checked="" type="checkbox"/> Aphids | <input type="checkbox"/> Other (SPECIFY) |

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS

EXHIBIT D
MILLING AND BAKING DATA

2002 UNIVERSITY OF MINNESOTA WHEAT QUALITY DATA

Location	Cultivar	TW lb/bu	1000 kwt (g)	Sizing		Kernel Moist (as is)	Wheat Ash 4% ^m	Wheat Protein 4% ^m	Kernel Hard NIR	FN (sec)	Total Prod. Flour Ext %	Flour Moist %	Flour Protein 4% ^m	Flour Ash 0.14	Mixo Abs (%)	Mixo Pat	Mixo Peak (min)	Bake Mix (min)	Bake Abs (%)	Rating Scores					Loaf Vol (cc)	Kernel Traits Score	Baking Traits Score
				lg sm	(%)															(%)	DC	CC	CG	CT			
Crookston, MN Morris, MN St. Paul, MN	ACS 99657	52.3	25.8	41	6	8.7	1.99	14.9	53.8	448	55.6	13.4	14.6	0.461	57.9	2	5.50	3.75	59.9	2	1	3	4	256	8.5	7.5	
	ACS 99657	54.7	27.0	42	8	8.7	2.08	15.7	46.9	207	51.2	13.9	15.3	0.438	57.3	2	8.50	4.50	61.3	3	4	5	5	241	8.4	7.4	
	ACS 99657	57.0	29.7	56	10	8.9	2.15	16.9	49.9	337	52.9	13.3	16.9	0.432	56.9	2	8.50	4.25	62.9	3	4	3	5	263	14.0	8.9	
	MEAN	54.7	27.5	46	8	8.8	2.07	15.8	50.2	331	53.2	13.5	15.6	0.444	57.4	2	7.50	4.17	61.4	3	3	4	5	253	10.3	7.9	
Crookston, MN Morris, MN St. Paul, MN	ALSEN	61.1	29.3	86	3	9.0	1.76	14.9	69.3	472	63.4	13.9	14.6	0.381	60.3	4	6.50	3.25	58.3	3	3	5	5	232	20.0	13.5	
	ALSEN	59.2	27.7	53	7	9.1	2.02	15.5	69.0	273	57.3	13.6	14.3	0.424	57.9	4	6.50	3.25	61.1	3	3	3	5	233	15.7	13.4	
	ALSEN	59.4	26.5	56	5	9.2	2.08	16.2	64.2	454	59.8	13.6	14.7	0.459	59.3	4	5.50	3.25	61.3	3	4	3	5	234	15.4	13.8	
	MEAN	59.9	27.8	58	5	9.1	1.95	15.5	67.5	400	60.2	13.7	14.5	0.421	59.2	4	6.17	3.25	60.2	3	3	4	5	233	17.1	13.6	
Crookston, MN Lamberton, MN Morris, MN	PARSHALL	62.7	28.5	64	5	10.5	1.69	14.6	68.3	427	65.6	14.0	13.5	0.470	60.3	3	4.50	2.25	56.3	3	4	3	5	232	18.2	9.4	
	PARSHALL	60.3	27.2	55	5	9.6	1.94	13.1	60.1	389	63.5	13.7	12.2	0.535	56.9	3	6.00	2.75	58.9	3	3	3	4	188	11.8	6.9	
	PARSHALL	61.0	27.9	64	6	9.9	1.97	15.2	60.1	251	63.0	13.2	13.8	0.435	56.2	3	5.50	3.25	60.2	3	5	5	5	211	16.3	8.7	
	MEAN	61.4	27.9	61	5	10.0	1.87	14.3	62.8	356	64.0	13.6	13.1	0.480	57.8	3	5.33	2.75	58.5	3	4	4	5	210	15.4	8.3	

2001 QUALITY DATA - NORTHSTAR GENETICS

Trial	Cultivar	Flour Protein %	Falling No.
Weinlaeder Hankey Rivard	99657	16.7	327
	99657	17.3	452
	99657	16.3	392
	Mean	16.8	390
Weinlaeder Hankey Rivard	ALSEN	16.8	552
	ALSEN	17.5	402
	ALSEN	15.7	392
	Mean	16.7	449
Weinlaeder Hankey Rivard	PARSHALL	15.9	349
	PARSHALL	16.8	414
	PARSHALL	15.4	420
	Mean	16.0	394

REPRODUCE LOCALLY. Include form number and edition date on all reproductions.

FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) DR. PETER FRANCK	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER ACS 99657	3. VARIETY NAME SATURN
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) PFLANZENZUCHT OBERLIMPURG DR. FRANCK OBERLIMPURG D 74253 SCHWAEBISCH HALL GERMANY	5. TELEPHONE (include area code) +49-791-931180	6. FAX (include area code) +49-791-47333
7. PVPO NUMBER 200400025		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.

☒ YES☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country.

☐ YES☒ NO

GERMANY

10. Is the applicant the original owner?

☒ YES☐ NOIf no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES☒ NO

If no, give name of country

GERMANY

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES☒ NO

If no, give name of country

GERMANY

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1985, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

ST-470-E (04-03) designed by the Plant Variety Protection Office using Word 2000

14